

Notice of Allowability

Application No.

09/881,986

Examiner

Chad Zhong

Applicant(s)

BELLEGRADA ET AL.

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/22/05.
2. ☒ The allowed claim(s) is/are 1-54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

Reasons for Allowance

1. This action is responsive to communications filed 09/22/2005.
2. Applicant's arguments filed 09/22/2005 with respect to claims 1-54 have been fully considered and are persuasive. The rejection of claims 1-54 have been withdrawn.
3. Claims 1-54 are allowable based on all of Applicant's argument filed 09/22/2005.
4. The following is an examiner's statement of reasons for allowance:

None of the prior art in record taken alone or in combination discloses determine a first semantic anchor corresponding to a first group of messages and a second semantic anchor corresponding to a second group of messages, where the semantic anchor is defined by equations $\bar{v}_1 = v_1 S$ and $\bar{v}_2 = v_2 S$ where \bar{v}_1 is the semantic vector/anchor representing legitimate email messages and \bar{v}_2 is semantic vector/anchor representing unsolicited email messages; V is the (2x2) right singular matrix with row vectors $v_j (j = 1, 2)$; S is the (2x2) diagonal matrix of singular values $s_1 \geq s_2 \geq 0$. A vector corresponding to an incoming message is determined using equation $\bar{v}_3 = v_3 S$ where \bar{v}_3 is the result vector representing the incoming message; v_3 is the un-scaled representation of new email message.

Comparing the vector corresponding to the incoming message with the first semantic anchor and the second semantic anchor to obtain a first comparison value and a second comparison value as defined by equation $K(\bar{v}_3, \bar{v}_j) = \cos(v_3 S, v_j S)$ where $v_j (j = 1, 2)$ and K represent a closeness value as a direct angular comparison between incoming message vector and the anchors. Lastly, filtering the incoming message through classifying the incoming message between the first and second groups based on the first comparison value and the second comparison value is an continuation of the K value determined in the above step. i.e. in one embodiment, if v_3 is closer to v_1 , i.e., the angle between \bar{v}_3 and \bar{v}_1 is smaller than the angle between \bar{v}_3 and \bar{v}_2 , the new email is considered to be a legitimate email. The above

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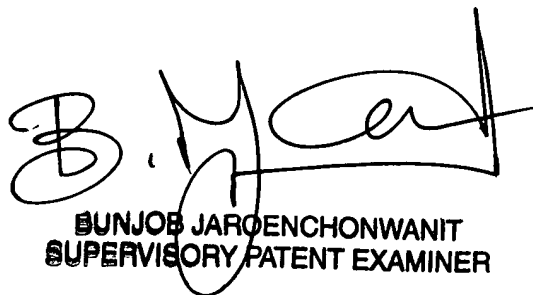
interpretation of the claims can be found in applicant's specification on pages 11-14. The most relevant reference was "Personalized Information Delivery: An Analysis Of Information Filtering Methods", Foltz et al, 1992. However, Foltz does not teach the combination of the above steps in order to filter the incoming electronic mail messages.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAROENCHONWANIT, BUNJOB can be reached on (571)272-3913. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ
January 31, 2006



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER